State	Do you use 4x8" cylinders for testing the compressive strength precast/prestressed concrete?	Do you use 4x8" cylinders for testing the compressive strength of concrete bridge decks, columns, etc. on construction projects? If yes do you apply any correction factor or other adjustment to the result of the test?	Have you performed any research study to analyze and compare 4x8" vs. 6x12"? If yes could you provide a link to a copy of the report?	Additional Comments or Information
Alaska	Yes, because of the higher compressive strengths in prestressed girders.	Yes, on occasion because of Alaska's remote projects and problems with shipping the larger cylinders. No, we do not apply a correction factor.	No.	
Arizona	Yes	Yes, with no correction factor.	Several years ago we did some comparison testing of 4x8" cylinders and 6x12" cylinders, and to the best of our knowledge the comparison was favorable, however the test results on the 4x8" cylinders were slightly higher than the 6x12" cylinders. (A formal report is not available)	
California	No	Yes, we used 4x8" cylinders for compressive strength only on the lightweight concrete. No correction factor was used.		
Colorado	Yes, if the normal maximum aggregate size in the concrete mix allows the use of 4x8 cylinders.	Yes, if the normal maximum aggregate size in the concrete mix allows the use of 4x8 cylinders. No, we do not apply a correction factor.	No, Industry through ASTM C39 has accepted the use of 4x8 cylinders w/o a correction factor.	CODOT uses ASTM C39 instead of AASHTO T22.
Connecticut	Yes. Some producers are still using 6x12".	Yes, both sizes are utilized. Correction factors are not used for 4x8" cylinders.	No	
Delaware	Yes	Yes, with no correction factor.	Yes,	
Distr. Of Columbia	No	No	No	
Florida	Yes	Yes, we allow 4x8" cylinders for all concrete verification testing.	Yes, we conducted some in house research on the correlation of 4x8" and 6x12" and found only about a 3% to 5% variation using the same typical aggregate type and size.	
Illinois	No, because of concerns that the test results are not comparable.	No, because of concerns that the test results are not comparable.	No	
Kansas	Yes, provided ample correlation data can be provided by the producer which correlates 4x8" to 6x12".	Yes, provided the nominal maximum aggregate size is no greater than 2". No correction factor is applied - only the L/D correction as per AASHTO T-22.		We have seen a 3% to 5% variation in compressive strength.
Maine	Yes, we currently use 6x12" for acceptance of precast but allow 4x8 for quality control.	No	Yes	We are considering allowing 4x8 for acceptance.
Massachusetts	Yes	Yes, we allow the use of 4x8" cylinders for compressive strengths for all cement concrete 6000 psi or less on construction projects provided the aggregate size is 1" or less in size.	Yes, no formal report.	We allow the use of neoprene bearing caps for cylinders of 6000 psi or less. All cylinders over 6000 psi are sulphur capped.

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Michigan	Yes	Yes, we do not apply a correction factor unless the cylinders fail the L/D requirements.	No	We allow the producers to decide which they will use. Most use 4x8. All use is contingent on the nominal maximum size of the aggregates used. MI has mostly small aggregates so the 4x8 cylinders can be used.
Minnesota	Yes, Minnesota uses 4x8" for everything unless the mix contains large stones.	Yes	No	
Mississippi	Yes, we allow both the prestress and precast producers to decide which they will use.	Yes, We allow the Contractor to decide and most use the 4x8" for QC. Some still use the 6x12", but this is becoming rare. No, we do not allow a correction factor.	No	All of this is contingent on the nominal maximum size of the aggregates used. MS has mostly smaller aggregates so the 4x8's can be used nearly everywhere without the T23 limits on cylinder size coming into play.
New Hampshire	Yes, all precast products	Yes, we use 4x8"s for all acceptance testing of concrete except our concrete with larger stone in it. No, we do not apply a correction factor.	Yes, many years ago we did a comparison of 4x8" cylinders and 6x12" cylinders. A copy of the test data is not available.	
New Jersey	Yes	Yes, we use 4x8" cylinders. No correction factor is used.	Yes, a study was conducted approximately 20 years ago, when we switched from 6x12" to 4x8".	
New Mexico	Yes	Yes, we use 4x8" cylinders for all components of our construction projects including bridge decks, columns etc. No, we do not apply correction factors since much work was done by our Materials Testing Engineer in the 1980's and 90's that provides compelling conclusions that no correction factor is necessary.	No report has ever been prepared or issued. However, thousands of data points were evaluated, as described in question #2.	NMDOT has been using 4x8" cylinders for over 10 years, and found them to be every bit as reliable and defensible as 6x12" cylinders with a lot less risk of damages due to the more difficult handling requirements. Additionally, our Materials Testing Engineer has been involved with many projects both public and private over the last 25 years where 4x8" cylinders were used without correction or adjustment, and in every case, the projects were completely successful in every respect to concrete strength measurements.
New York	Yes, allow the use of 4x8" cylinders for Precast only..	Yes, we do not apply a correction factor.		
North Carolina	Yes	Yes, with no correction factor.	No formal report exists for our original acceptance of 4x8" cylinders.	Periodically comparison tests are run.

State	Do you use 4x8" cylinders for testing the compressive strength precast/prestressed concrete?	Do you use 4x8" cylinders for testing the compressive strength of concrete bridge decks, columns, etc. on construction projects? If yes do you apply any correction factor or other adjustment to the result of the test?	Have you performed any research study to analyze and compare 4x8" vs. 6x12"? If yes could you provide a link to a copy of the report?	Additional Comments or Information
Ohio	Yes	No		One of the concerns we have for switching over, is arguments over what is an acceptable value. See ACI 318.
Oklahoma	Yes, we have allowed the use of 4x8" cylinders for prestressed concrete for approximately 10 years.	Yes, we have allowed the use of 4x8" cylinders for the last year. We do not use any correction factor or other adjustments. We made the switch because of the weight issue for handling the cylinders and to reduce the stress on the testing equipment.	No, we did not conduct any research study for comparison of the cylinders. When AASHTO T23 adopted C1231 and allowed the use of neoprene pads with 4"x8" cylinders we made the switch.	The switch has worked well for us as a whole. One issue that has arisen is the small cylinders are not as forgiving of temperature extremes. If the cylinders are exposed to temperatures above 100 degrees during the first 24 hours your strength breaks will be reduced significantly.
Ontario	We only use 150 mm cylinders (2 per set) for acceptance of regular strength concrete (30, 35 or 40MPa)	For high performance concrete (50MPa with silica fume), only 100mm cylinders are specified for acceptance test with 3 cylinders as a set. This was based on the consideration that the equipment in many commercial laboratories could not test 150mm HPC cylinders as the strength often reached 70 MPa or even higher.	Yes, We have conducted a trial with 30 and 35MPa Concrete in a contract to compare the results from two different cylinders. No, correction factor was applied. No report was published. (Summary of results available)	The Ministry of Transportation of Ontario (MTO) is moving towards using 100 mm cylinders for acceptance of all types of concrete. Ontario specification needs to be modified so that impact from this change can be minimized.
Oregon	Yes, ODOT uses 4x8" cylinders for all concrete with 3/4" or smaller aggregate. We require 6x12" cylinders for larger aggregate such as the 1-1/2" aggregate required for paving concrete.	Yes, with no correction factor.	Yes (informal Study)	Informal study showed a slightly higher strength with 4x8" cylinders.
Pennsylvania	Yes	No	No	
Rhode Island	yes	Yes, except for bridge decks. No correction factor is used.	Yes, we have limited data that showed the average to be slightly higher with the 4x8".	
South Carolina	Yes	No	Research is in progress	
Texas	yes	Yes, if the aggregate grade (Nom. Max size) Permits	Yes	There was in-house research done in the early 80's. Also a lot of other research is available (Malhorts's ACI publication in the '70's, Gonnermans's classic publication in 1925, and many looking at high strength concrete and cylinder size: Burg and Ost, Peterman and Carrasquillo FHttp://library.ctr.utexas.edu/pdfo2/315-1f, Carino, etc.)
Utah	yes	no	no	
Virginia	Yes	No	Yes, http://vtrc.virniniadot.org/PubDetails.aspx?PubNo=84-R44	

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Washington	Yes	Yes, with no correction factor.	Yes	When using 4x8" cylinders there is a limitation on the upper aggregate size. In WSDOT's test procedure for making and curing concrete test specimens, the procedure clearly states when 4x8" cylinders can be used and when 6x12" cylinders are required. "The standard specimen shall be the 4 by 8-in. (100 by 200-mm) cylinder when the nominal maximum size of the course aggregate does not exceed 1 in. (25 mm). When the nominal maximum size of the coarse aggregate exceeds 1 in. (25mm) the specimens shall be made with 6 by 12 in. (150 by 300 mm) cylinders. Mixing of cylinders sized for a particular concrete mix design is not permitted on a project."
West Virginia	Yes	Yes, we have just recently started allowing the use of 4x8" cylinders for acceptance of cast-in-place concrete. No, we do not apply a correction factor, but we do make the concrete suppliers prequalify the 4x8" cylinders during their mix design approval process. They are allowed to use 4x8" cylinders instead of 6x12" for acceptance of cast-in-place work only if the results of both cylinder sizes are within 10% of each other during the mix design approval.	Yes, we sent out a similar survey a few years ago, and based on that and discussions with testing labs, etc. is how we reached our conclusions.	
Wyoming	No	No (see comments)	No	For most concrete, we use 6x12" cylinders. The exception is our silica fume modified concrete used for bridge deck overlays, where we use 4x8". No correction is applied.